

Triumph of individual over aggregate? Influence of different measures of cultural distance on collaborative project performance in emerging market

Abstract

Cultural distance continues to be one of the most studied variables in international business research. Scholars have operationalized cultural distance in various ways—using Hofstede’s cultural dimensions in index or aggregated form, GLOBE project scores, and Hofstede’s dimensions in individual form—and, in the process, often produced inconsistent and contradictory findings. In this study we employ different measures of cultural distance, aggregated and individual dimension-based, to examine how they influence collaborative project execution performance in the emerging market context. Utilizing institutional perspective as theoretical background and examining a sample of capacity expansion projects involving foreign MNEs and Indian firms, we find that aggregate versus individual measure of cultural distance produce different impacts on the likelihood of project completion. Individual dimension-based measure of distance yields fine-grained results that are masked when aggregate measure is used in the analysis.

Somnath Lahiri
Illinois State University
United States
slahiri@ilstu.edu

Karthik Dhandapani
Indian Institute of Management Tiruchirappalli
India
karthik@iimtrichy.ac.in

Triumph of individual over aggregate? Influence of different measures of cultural distance on collaborative project performance in emerging market

INTRODUCTION

Scholars studying international business (IB) phenomena continue to remain intrigued by the role national culture, and in particular cultural distance, plays in determining important firm-level outcomes. Cultural distance (CD hereafter) has been extensively studied in the context of MNE's internationalization such as joint venture and other forms of strategic alliance, cross-border acquisition, entry mode and establishment mode choice etc. over the years producing a voluminous body of important insights (see Beugelsdijk, Kostova, Kunst, Spadafora, & van Essen, 2017 for meta-analysis, and Lopez-Duarte, Vidal-Suarez, & Gonzalez-Diaz, 2016 for review). Although there is unanimity amongst researchers and practitioners that CD is a crucial predictor of international success (or failure), there exists ambiguity about the nature and extent of CD's impact on MNC internationalization. Part of the inconsistency or divergence in findings results from inadequate grasp over what CD construct actually is (Brouthers & Brouthers, 2001; Shenkar, 2012; Shenkar, Luo, & Yehekel, 2008; Williams & Grégoire, 2015). A related, and perhaps more important reason, is how CD is operationalized in empirical analysis (Li, Brodbeck, Shenkar, Ponzi, & Fisch, 2017; Zaheer, Schomaker, & Nachum, 2012).

Most IB scholars tend to use aggregate measure of CD formulated by Kogut and Singh (1988) that utilizes original four dimensions of culture (individualism–collectivism, uncertainty avoidance, power distance, and masculinity–femininity) proposed in Hofstede (1980). The seminal work of Kogut and Singh, that has more than 5983 google scholar citations, *is among the most cited papers in management* (Beugelsdijk et al., 2017). Citing methodological inadequacies associated with this aggregate measure, several scholars (e.g., Castaño et al., 2015 ; Reus & Lamont, 2009) have used scores provided by the GLOBE (Global Leadership and Organizational

Behavior Effectiveness) research project (Brewar & Venaik, 2010; House et al., 2004). GLOBE identifies nine dimensions of national culture that are measured in the form of societal practices (as things are) and societal values (as things should be). Despite the growing popularity of GLOBE scores, concerns regarding if the scores represent valid cultural dimensions exist in the literature (Earley, 2006; Taras, Steel, & Kirkman, 2010).

Interestingly, IB scholarship has witnessed works that avoided Kogut and Singh (1988) composite measure or GLOBE scores, and utilized individual dimensions of national culture to predict important organizational outcomes. The study of the effects of (a) individualism–collectivism on merger volume and synergy gains (Ahern, Daminelli, & Fracassi, 2015), (b) uncertainty avoidance on ownership choice in cross-border acquisitions (Contractor, Lahiri, Elango, & Kundu, 2014), (c) uncertainty avoidance, power distance, individualism, and masculinity on corporate reputation differences (Deephouse, Newbury, & Soleimani, 2016), and (d) individualism–collectivism and uncertainty avoidance on internet shopping (Lim, Leung, Sia, & Lee, 2004) are few examples of such works.

The argument forwarded by these scholars is individual dimensions are sometimes more relevant and applicable (than aggregate measure of CD) in explaining certain IB phenomena. In addition, certain cultural dimensions may be less relevant (than other dimensions) to particular situations. Lim and colleagues (2004), for example, rationalize that since individualism–collectivism affects trust-formation in people and since uncertainty avoidance impacts people's willingness to accept uncertainty, and since both (trust-formation and uncertainty) are inherent in online transactions, so both the dimensions need to be included in their analysis of internet shopping adoption rates. Contractor et al. (2014: 934) argue that uncertainty avoidance is salient indicator of culture in their study since cross-border acquisitions are inherently uncertain in their

processes and outcomes. Researchers preferring use of individual dimensions feel that international outcomes can be best predicted by selecting cultural attributes that specifically relate to the research question, rather than by combining every dimension into an aggregate index. These and other researchers have called for more studies that utilize nuanced understanding and measure of national culture in explaining IB phenomena (Beugelsdijk et al., 2017; Williams & Grégoire, 2015).

Our purpose in this study is to add to this body of scholarly work by utilizing CD in a relatively underexplored research domain. Our goal is not to argue which concept or measure of CD is better in a given context. Rather we want to investigate if, and to what extent, empirical results differ when CD is operationalized as a composite index vis-à-vis when it is measured in terms of individual dimensions. We conduct our investigation on a sample of international collaborations between foreign MNEs and emerging market (Indian) firms. The investigated collaborations involve capacity expansion projects (explained later in detail) that are ubiquitous in many emerging markets. Our results show that individual versus aggregate measure of CD produces different impacts on project execution performance (measured as *likelihood of project completion*). We focus on project execution performance for three reasons.

First, numerous capacity / infrastructure expansion projects are executed in emerging markets like India wherein domestic firms collaborate with foreign MNEs to overcome technological, managerial and financial resource constraints. But fate of such projects (success or failure) and their theoretical and practical implications rarely feature in the mainstream literature. Although these projects are important for emerging markets and indigenous firms, we have little idea about their successful completion or failure. Second, successful project executions may not be an end in themselves. Well-executed projects may be the starting point of deeper joint ventures or alliances between the collaborating partners. Project level success generates signals to the collaborating partners on how to progress with the existing and connected projects, and how to deal with future projects that may have been planned in advance. Thus, from a managerial standpoint understanding project execution performance is of critical importance. Third, firm performance is a multidimensional construct (Peng & Luo, 2000; Richard, Devinney, Yip, & Johnson, 2009), and project execution performance may be considered an indicator of overall performance of the firm, and also the quality of collaboration with a foreign partner. Taken together, by accomplishing project-level analysis we address an important gap in the literature.

The remainder of the paper is organized as follows. In the next (second) section, we provide theoretical background of this study. In doing so we draw upon the institutional perspective (Chen et al., 2017; Peng, Wang, & Jiang, 2008). In the third section, we develop several testable hypotheses. In the fourth section, we describe our research methodology and provide results of empirical analysis. In the fifth (final) section, we discuss various theoretical and practical implications of this study, highlight limitations, and suggest avenues of future scholarship.

THEORETICAL BACKGROUND

Cultural distance and international collaboration

The institutional perspective suggests that a key success factor in MNE foreign entry relates to understanding the host country's institutional environment. Institutions define the rules of the game and foreign entrants need to abide by those rules in order to perform well and be successful (Lahiri, Elango, & Kundu, 2014; North, 1990; Meyer & Peng, 2016; Peng et al., 2008). This research stream suggests that both formal and informal institutions vary across locations, and such exogenous differences influence how MNEs engage in partner selection, and initiate and sustain successful collaborations. The institutional perspective is used by scholars to analyze

various foreign entry modes including those that involve interfirm collaboration (Abdi & Aulakh, 2012; Roy, 2012).

According to the institutional perspective culture, language, and societal values and norms represent informal institutions in a nation (Dikova, Sahib, & van Witteloostuijn, 2010). Prior literature cautions MNEs that CD manifested in differences in cultural attributes, can create barriers to communication (verbal and non-verbal), cooperation, and conflict resolution between business partners, and all of these can result in less-than-efficient interfirm interaction. CD can also manifest in unclear interpretation or misunderstandings of strategic, financial or managerial issues and subsequent undesired or delayed responses. An important consequence of CD is ambiguity (or even suspicion) in understanding and interpreting partners' business intentions and goals, and reduction in trust (Beugelsdijk et al., 2017; Dikova et al., 2010; Hau & Evangelista, 2007).

Taken together, CD may impart significant challenges to MNEs' collaboration initiation, sustenance, and completion. One way to allay the above challenges is to devise mechanisms to bridge institutions-related differences by engaging in learning about the host culture and gradually adapting to it. However, learning and adaptation requires time, energy and effort by the managers. Such adaptations are typically costly and raise the transaction costs of doing overseas business. Although intuitively CD should lead to negative effects on alliances, prior research has found mixed evidence: negative, none, and positive (Nielsen, 2007; Ren et al., 2009) leading scholars to conclude that the effect of distance on alliances is more complex than usually thought of.

In a conceptual paper, Sirmon and Lane (2004) posit that since managers realize that cultural differences in international contexts can be detrimental to alliance functioning, they become more cautious in avoiding misunderstandings between collaborating partners. So managers deploy additional efforts to develop better communication, commitment, and mutual understanding. Such efforts lead to better sharing and joint utilization of complimentary assets residing in the partner firms and eventually produce better alliance outcomes. Similar logic is offered by Ren and colleagues (2009: 821) who argue, in the context of international joint ventures, that cultural differences may actually "act as a source of admiration, leading to a higher level of communication and more sustained collaboration".

Four dimensions of national culture predominantly feature in the literature. *Individualism–collectivism* refers to the degree to which individuals are integrated into groups. Individualism refers to "societies in which the ties between individuals are loose; everyone is expected to look after him or herself and his or her immediate family" (Hofstede et al., 2010: 92). Individualistic societies tend to promote feelings of self over group in needs, values and goals, while collectivistic societies tend to foster pride, loyalty, and cohesiveness. Collectivistic societies also attach great importance to group harmony, relationships, modesty and face. As a result, ties between individuals tend to be loose in the former and strong in the latter (Chiang & Birtch, 2010, Deephouse et al., 2016; Hofstede, 2001). Differences in individualism–collectivism has been studied in the context of performance appraisal (Chiang & Birtch, 2010), reputation of country's corporations (Deephouse et al., 2016), CEO dismissal (Li et al., 2017), internet shopping (Lim et al., 2004), firm's response to mimetic forces (Li & Parboteeah, 2015), alliance termination (Malik & Zhao, 2013) etc.

Uncertainty avoidance dimension is "the extent to which the members of a culture feel threatened by uncertain or unknown situations" (Hofstede, 2001: 161). Uncertainty avoidance deals with a society's tolerance for uncertainty and ambiguity. While low uncertainty avoidance

societies are not greatly threatened by situations that are novel, surprising, and different high uncertainty avoidance societies are greatly intolerant of such situations. To overcome uncertain and ambiguous situations, individuals in uncertainty avoiding cultures tend to use laws, rules, and procedures in work settings that foster planning, directing, and monitoring (Chiang & Birtch, 2010). In general individuals in uncertainty avoiding cultures also seek stability, security, and consistency in attitudes and actions (Malik & Zhao, 2013) and prefer not to encounter major changes in the workplace. Resistance to organizational change is more common in high uncertainty avoidance societies than low uncertainty avoidance societies (Lim et al., 2004). Uncertainty avoiding has been studied in the context of acquisition ownership (Contractor et al., 2014), reputation of country's corporations (Deephhouse et al., 2016), subsidiary ownership (Hennart & Larimo, 1998), internet shopping (Lim et al., 2004), firm's response to mimetic forces (Li & Parboteeah, 2015), post-acquisition performance (Morosini et al., 1998) etc.

Power distance refers to "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (Hofstede, 2001: 98). This dimension basically reflects power inequality and authority relations in the society, and its consequences in the hierarchy and dependence relationships in family and work settings. High power distance societies are more acceptable of (i.e., comfortable with) power inequality than low power distance societies. Use of hierarchies and hierarchical positions, for example, carries more meaning of power inequality in high power distant societies than low power distant societies. That is, acceptance of the notion that organizational actors that have higher positions in the hierarchy carry more power, prestige, and deserve high respect is more common in the former than in the latter (Deephhouse et al., 2016; Lim et al., 2004). As a result, the boss-subordinate distance is typically more in high power distant societies and less in low power distant societies. In the literature, power distance has been used in the context of corporate reputation (Deephhouse et al., 2016), subsidiary ownership (Hennart & Larimo, 1998), CEO dismissal (Li et al., 2017), firm's response to mimetic forces (Li & Parboteeah, 2015), termination of alliance (Malik & Zhao, 2013) etc.

Masculinity-femininity refers to role of gender in the society. A society is deemed as masculine when "emotional gender roles are clearly distinct; men are supposed to be assertive, tough, and focused on material success; whereas women are supposed to be more modest, tender, and concerned with the quality of life" (Hofstede et al., 2010: 140). Masculine societies tend to be associated with challenge and competition, career advancement, recognition, high performance and high competition in the work setting whereas feminine societies are associated with care, sympathy, intuition, quality of life, and concern for others (Deephhouse et al., 2016). These attributes are reflected in managerial behavioral and management practices. For example, managers in masculine societies tend to favorably view assertion, decisiveness, aggression, active pursuit of organizational goals, and equity-based rewards, whereas managers in feminine societies tend to view these less favorably and remain focused on the well-being of relationships, and equality-based rewards (Deephhouse et al., 2016; Malik & Zhao, 2013). Masculinity- femininity dimension has been utilized in the context of corporate reputation (Deephhouse et al., 2016), firm's response to mimetic forces (Li & Parboteeah, 2015), and termination of alliance (Malik & Zhao, 2013).

HYPOTHESES DEVELOPMENT

CD and project-completion likelihood

As explained earlier, culturally unfamiliar host nations raise challenges of doing business. Despite well done home-work, MNEs may still find navigating through and learning about the

shared values, norms, and priorities in the emerging market host nation unpredictable and complicated. When allying with local partners MNEs may find it difficult to transfer home- grown knowledge, organizational routines and procedures, and management practices (Hau & Evangelista, 2007; Sirmon & Lane, 2004). Moreover, MNEs may find it challenging to decide how to establish norms, procedures and communication patterns to monitor project progress, handle contact deviations, manage procedural delays, and deal with human capital- or organizational level conflicts (Amsden & Hikino, 1994; Lahiri & Kedia, 2009). In addition, MNEs may find it challenging to understand expectations, intentions, preferences, and managerial behavior of their counterparts especially in times of project-related hindrances or conflicts. All of the above may necessitate additional time requirement for MNEs to understand, learn, adapt to, and bridge culture-related gaps. Such gaps may decrease the likelihood that the initiated projects would be completed in time.

Although the role of culture and CD on the performance of alliances, in particular joint ventures, has been studied by several scholars (e.g., Barkema & Vermeulen, 1997; Ren et al., 2009), prior studies on project completion provide us with very limited direction (Dikova et al., 2010). We posit that CD's effect on project-completion would be disruptive. Going by this logic, high CD will pose challenges for the collaborating partners in working together efficiently by creating conflicts, misunderstandings, suspicion, inability to utilize firm-specific assets etc. that may prevent the projects from being successfully completed. Lower likelihood of project completion can happen from differences in (a) individualism-collectivism across collaborating parties (e.g., differences in relationship preservation and harmony maintenance in dealings, or differences in focus on one-sided benefit versus mutual benefit), (b) uncertainty avoidance (e.g., differences in how uncertainty related to project progress or conflict resolution are perceived and handled), (c) power distance (e.g., differences in the perceived importance of hierarchies and information flow across proper hierarchical channels or differences in how each party views the other as being more or less powerful, and (d) masculinity-femininity (e.g., differences in the perception of aggression needed for project completion or differences in perceived view of the ongoing contract as a challenge to be overcome or a process to be jointly accomplished). We hypothesize,

Hypothesis 1a: Higher the difference in individualism-collectivism between home and host nation, lower the likelihood of project-completion.

Hypothesis 1b: Higher the difference in uncertainty avoidance between home and host nation, lower the likelihood of project-completion.

Hypothesis 1c: Higher the difference in power distance between home and host nation, lower the likelihood of project-completion.

Hypothesis 1d: Higher the difference in masculinity-femininity between home and host nation, lower the likelihood of project-completion.

We noted earlier that few scholars (e.g., Sirmon & Lane, 2004) suggest that CD can produce positive impact on important international outcomes owing to its synergistic (and not disruptive) effects. Similar to the arguments provided by Ren et al. (2009) and Sirmon and Lane (2004), Koch and colleagues (2016) argue how differences in values need not always be detrimental. These scholars, in advancing the notion of cultural friction, posit that variation in cultural values make people to "have access to a diverse repertoire of behavior that creates a potential for synergy" (Koch et al., 2016: 455). The scholars note that cultural differences are resources that can be utilized by the partners to enhance necessary learning and cross-cultural adaptation. Thus differences in cultural attributes can be beneficial, and serve as sources of synergy.

We posit, in a rather opposite manner, that CD will not produce disruptive influence on the progress of projects so as to prevent completion. As capacity expansion projects have significant

financial and non-financial implications in emerging markets, we argue that foreign MNEs will endeavor to devise strategies to minimize distance-based communication problems, misunderstandings, and conflicts with their alliance partners in the interest of project success. MNEs would exercise greater vigilance from the initiation phase of collaboration and strive to prevent or mitigate problems associated with communication, mutual understanding, conflict resolution etc. that are thought to be detrimental to trust-building and quality of ongoing partnerships.

Since foreign MNEs generally have wide international exposure they will utilize their accumulated distance-related learning to ensure that the announced projects are efficiently implemented. We posit that the MNEs realize that their proactive stance aimed at overcoming challenges relating to differences individualism-collectivism, uncertainty avoidance, power distance, and masculinity-femininity for smooth project continuity and success will allow development of trust with their partners, pave the way for future contracts, and help in establishing legitimacy in the host nation. In sum, keeping in mind the importance of projects from financial, strategic, legitimacy- and reputation-building standpoints, MNEs will remain cautious and ensure that chances of failure owing to differences in cultural dimensions are minimized. Our next set of (competing) hypotheses are,

Hypothesis 2a: Higher the difference in individualism-collectivism between home and host nation, greater the likelihood of project-completion.

Hypothesis 2b: Higher the difference in uncertainty avoidance between home and host nation, greater the likelihood of project-completion.

Hypothesis 2c: Higher the difference in power distance between home and host nation, greater the likelihood of project-completion.

Hypothesis 2d: Higher the difference in masculinity-femininity between home and host nation, greater the likelihood of project-completion.

DATA AND MEASURES

For hypotheses testing, we examine a sample of large capacity expansion (CapEx) projects. These projects involve (a) creation of a new factory or industrial unit, (b) substantial expansion of an existing capacity, or (c) renovation/modernization of an existing plant within the same capacity. For these collaborations, investing MNEs tie up with local promoters who make public announcements of the projects. Successful completion of CapEx projects lead to establishment of new capacity for local firms (Ayyagari et al., 2015; Singh, Pattnaik, & Ketencioglu, 2015). India provides a perfect research setting for two compelling reasons.

First, numerous CapEx projects involving foreign collaboration are executed in India with varying levels of success. While many projects are successfully implemented, several do not start on time after announcement or are temporarily discontinued (stalled) after start. Some projects are permanently discontinued (abandoned) while others are rescinded (shelved) i.e., their implementation never initiate despite announcement by the local promoters (CapEx, 2016). Few examples will make this clear. Consider the Delhi international airport modernization project that was announced in September 2003. Malaysia Airports Holdings Bhd. collaborated with Indian firm GMR Infrastructure Ltd. on this project. The project was successfully completed in December 2010 within the announced time-period.

However, another project titled “colored coated steel project” between British Steel and Jindal Coated Steel private ltd. was announced in 1997 but was shelved two years later in 1999. An example of a project that was completed, albeit after substantial delay, is the “quadricycle project” between Renault Automobiles (France) and Bajaj Auto Limited (India). This project was

announced in March, 2006 and was to be commissioned by June 2009. However, project implementation was stalled in December 2009 due to lack of promoter interest. It was finally completed in September 2015 (CapEx, 2016). Second, India's national culture and cultural dimensions, although similar with those in many Asian countries, are quite different from the culture in non-Asian- and western nations.

We obtained data from CapEx database maintained by the Center for Monitoring the Indian Economy (CMIE). CapEx provides information for capital investment projects in India since 1988, including the project-announcing company's name, announcement-date, industry classification, total cost of the project, type of products manufactured and nature of ownership (group-affiliated or standalone). The database also includes information on the status of a project: announced, under implementation, abandoned or completed. To compile this database, CMIE gathers information from companies that create new capacities as well as from public sources such as media reports.

The unit of analysis in this study being 'project' we ensured that we get all the relevant information pertaining to a given project including associate name, foreign address, and reason for abandonment where applicable. We removed from the sample projects that were announced by non-Indian firms i.e., subsidiaries of foreign firms. We also removed projects there did not involve a foreign partner. In addition, we deleted projects where the promoter is not a firm but government or any individual. After matching this data with *geographic distance* variable obtained from a different source (highlighted later), we were left with 265 projects that were either completed, failed, or outstanding (i.e., under-implementation). Our data spans twenty-three years from 1992 to 2014.

Dependent Variable

This study's dependent variable is *likelihood of project completion*. We considered a project as *completed* if its status showed "completed" in the CapEx database, and *failed* if its status was one of the following: announced and stalled, implementation-stalled, shelved or abandoned. Completed projects are coded as 1 ($n = 182$) while failed and under-implementation projects are coded as 0 ($n = 83$).

Independent Variables

The four independent variables in this study are (a) difference in individualism-collectivism (D-IC), (b) difference in uncertainty avoidance (D-UA), (c) difference in power distance (D-PD), and (d) difference in masculinity-femininity (D-MF) between MNE home country and host country (India). To calculate *difference*, we subtracted India-score from MNE country-score on a particular cultural dimension and took the absolute value. We accessed scores on cultural dimensions from Hofstede (1980) and Geert Hofstede's personal website (<https://geert-hofstede.com>).

Control Variables

We included seven control variables in our analysis. The data for the first five is obtained from CapEx database. The first control, *project-cost*, measures the total cost of the project in million Indian rupees (log transformed). We included this control since higher project cost (compared to lower) is likely to make MNEs exercise more vigil on successful completion. The second control variable, *project-type*, is meant to take care of the nature of the project: creation of new unit, expansion of an existing unit or renovation of an existing unit. Creation of new unit was coded as 0 and others are coded as 1. This control was included since differences in project management are likely to exist across the two types. The third variable, *time-clock*, controls for changes in the business environment during the study's time-period. This is coded as a trend variable. We include this control as the Indian economy has undergone economic and structural

reforms since the onset of liberalization in early 1990s that have led to gradual easing of doing business in the country.

We included a fourth control, *completion rate*, to account for the heterogeneity in the ease of doing business within India. India follows a federal structure and some states in India have better investment climate compared to others. Completion rate is the rate of completion of past projects in the state in which the focal CapEx project is located. The fifth control variable that we included is *sector*. Prior research (Kundu & Lahiri, 2015) suggests that significant differences exist in MNE behavior and performance outcomes across manufacturing and service sectors. All service projects are coded as 1 and others are coded as 0.

Our sixth control variable is *geographic distance*. Prior research suggests that physical distance between countries can influence trade and various foreign activities of MNEs (Chakrabarti & Mitchell, 2013). We measured geographic distance utilizing cross-national distance database provided by the Lauder Institute, University of Pennsylvania, USA. This distance is measured using the Great Circle distance between two countries (Berry et al., 2010:1465).

The seventh control variable is business group (*BG*) *affiliation*. India is home to a large number of BGs that vary in size, diversity, and ownership (George & Kabir, 2012). Prior research suggests that firms affiliated to BGs enjoy several benefits (e.g., access to internal capital, technology, and managerial talent) that non-affiliated or standalone firms do not enjoy (Chittoor, Kale, & Puranam, 2015; Lu & Ma, 2008). We believe that whether the collaborating Indian partner is BG-affiliated or not is of crucial importance to foreign MNEs from the standpoint of project completion. We measure BG-affiliation using a dummy variable that takes a value of '1' if the Indian partner is affiliated to a BG and '0' for a partner that is an independent firm. Prior research has used this classification (Gaur & Delios, 2015).

Table 1 summarizes our measures, and their description and data source.

Insert Table 1 about here

METHODS

Table 2a and Table 2b report descriptive statistics and correlations of the study variables. Review of bivariate correlation values indicates that there is no concern for multicollinearity as the correlations are not very high. Additionally, we computed Variance Inflation Factors (VIFs) and found them all to be below the rule-of-thumb cutoff value 10. Specifically, the VIF values are below 2.0.

Insert Table 2a about here

Insert Table 2b about here

To test our hypotheses we used logistic regression (since likelihood of completion is a binary outcome variable: completed/failed). We used residual centering to minimize multicollinearity in two way interactions (de Jong, de Ruyter, & Wetzels, 2005).

RESULTS

Table 3 shows the results of regression analysis for aggregate measure of CD (Kogut & Singh, 1988). The positive and statistically significant regression coefficient ($\beta=0.508$, $p < 0.10$) suggests that CD is associated with greater likelihood of project completion. This finding supports

the rationale that in view of financial, strategic, legitimacy- and reputation-related implications, MNEs proactively exercise greater vigilance than usual in their collaborative projects and ensure that culture-related challenges does not come in the way of project completion.

Insert Table 3 about here

Table 4 shows the results of regression analysis for individual dimensions of culture.

Insert Table 4 about here

Our hypothesis 1a predicts that higher difference in individualism-collectivism would lower the likelihood of project-completion, and hypothesis 2a predicts the opposite (greater likelihood). The negative and statistically significant regression coefficient ($\beta = -1.634$, $p < 0.10$) for the direct relationship between D-IC and likelihood of project-completion in Model 6, Table 4 suggests support for hypothesis 1a and not hypotheses 2a. The finding suggests that MNEs find high D-IC with their partners difficult to manage during currency of collaboration, and inability to efficiently manage the distance lowers the likelihood of project completion. Stated differently, D-IC is detrimental for project completion and MNEs need to better prepare themselves on how to understand, assess, and handle differences arising from *I versus we* and *my versus our* in dealings with their partners.

Likewise, the negative and statistically significant regression coefficient ($\beta = -1.173$, $p < 0.05$) for the direct relationship between D-UA and likelihood of project-completion in Model 5, Table 4 suggests support for hypothesis 1b, and not hypotheses 2b. This finding suggests that MNEs find high D-UA difficult to manage during currency of collaboration, and inability to efficiently manage such difference lowers the likelihood of project completion. Stated differently, D-UA (like D-IC) is detrimental for project completion, and MNEs need to better prepare themselves on how to evaluate and handle differences arising from how comfortable versus difficult the partners are in dealing with any kind of uncertainty that arises during project execution.

Hypothesis 1c and hypothesis 2c predict opposite effects of difference in power distance on project completion likelihood. The positive but statistically non-significant regression coefficient ($\beta = 0.274$, n.s) for the direct relationship between D-PD and likelihood of project completion in Model 6, Table 4 does not indicate support for any of the two hypotheses. We cannot conclude whether D-PD is disruptive or synergistic for project completion. This finding suggests that differences in perceptions about inequality of power distribution, or significance of organizational hierarchy across collaborating partners does not matter to MNEs in successfully completing their ongoing projects. It is possible that MNEs are able to understand and assess such differences better during their homework prior to actual collaboration and are, therefore, able to handle the differences successfully after collaborations initiate in the host countries.

Our hypothesis 1d predicts that higher difference in masculinity-femininity would lower the likelihood of project-completion and its competing hypothesis 2d predicts the opposite (greater likelihood). The positive and statistically significant regression coefficient ($\beta = 0.990$, $p < 0.01$) for the direct relationship between D-MF and likelihood of project completion in Model 6, Table 4 suggests support for hypothesis 2d. The finding suggests that D-MF (unlike D-IC and D-UA) is not detrimental to project completion. This finding upholds the logic that in view of financial, strategic, legitimacy- and reputation-related implications in the host nations, MNEs proactively exercise greater vigilance in their collaborative projects, and ensure that D-MF does not come in the way of project completion. One may rationalize that MNEs, in the interest of

project success, sincerely attempt to assess and handle differences related to work-related aggression, active pursuit of performance goals, partnership quality, equality of performance benefits etc.

Additional analysis:

We understand that differences across cultural dimensions impact collaborations jointly and not in isolation of one another. Although we did not theorize on the joint effect of distance on the likelihood of project completion, we tried (rather randomly) various interaction effects on the dependent variable of this study. We found two interactions to be statistically significant. The first one is the interaction between D-IC and D-UA. The interaction is positive and statistically significant ($\beta = 1.043$, $p < 0.01$). This is interesting because it indicates that collaborations involving high D-IC and high D-UA are associated with greater likelihood of completion. Individually the two differences, as we found earlier, are associated with lower likelihood of completion. But when they act together they alter the completion likelihood: from lower to higher. This indicates that MNEs become additionally cautious when difference in individualism-collectivism and uncertainty avoidance are both high. Specifically, in such instances, they exercise greater vigilance to understand, assess and manage both the differences as best as possible to ensure that their projects are completed.

The second interaction that we found significant is between D-IC and D-MF. The interaction is negative and statistically significant ($\beta = -1.642$, $p < 0.001$). This finding suggests that the joint impact of high D-IC and D-MF lowers the likelihood of project completion. Individually, D-IC and D-MF are negatively and positively associated (respectively) with project completion likelihood. The interaction effect means that the negative influence of D-IC overrides the positive impact of D-MF to result in a joint negative influence on completion likelihood. MNEs, it appears, are significantly impacted by differences in individualism-collectivism than with the differences in masculinity-femininity, and the synergistic influence of the latter (D-MF) is mitigated by the disruptive influence of the former (D-IC).

The above interaction effects are shown in Figure 1 and Figure 2.

Insert Figure 1 about here

Insert Figure 2 about here

DISCUSSION

Contributions

This study makes several theoretical contributions. First, by focusing at the project level this study adds to the limited literature on valuable project execution outcome such as completion-likelihood. Every MNE foreign entry is, in reality, a project i.e., a series of interrelated activities that must be completed within a specified timeline. Abandoning activities after successful start or pulling away from announced projects can result in loss of reputation and legitimacy for MNEs, creation of distrust in the minds of foreign partners, and lowered firm performance owing to cost overruns (Amsden & Hikino, 1994; Meyer et al., 2009). Thus MNEs need to ensure that their collaborative projects are not only initiated on time but are successfully completed as well.

We argue that project completion (and ideally completion within the allocated time duration) sends positive signals about management and partnership capabilities of MNEs. We also argue that project success should be considered as precursor to firm performance (in addition to alliance

performance) in the host nation (Chanda & Ray, 2016). How can foreign entrants hope to achieve high performance in their host nations if their ongoing projects remain unsuccessful because of failure to complete? While the collaboration / alliance literature remains focused on various financial and non-financial parameters of success (see Christoffersen, 2013; Nielsen, 2007), few studies explicate the nuances of success at the project level. Our study thus adds to the nascent project-related research in international business (Ayyagari et al., 2015; Chanda & Ray, 2016; Singh et al., 2015).

Second, this study adds to the extant CD scholarship by generating findings that are new and interesting. The association of CD with increased completion likelihood reinforces the notion that differences in cultural attributes across home and host nations may not always be detrimental and counter-productive. MNEs can use perceived culture-related impediments to their advantage by being additionally vigilant, and working towards minimizing or overcoming challenges inherent in cross-border collaborations. Our study adds to the body of research that highlights the positive effects of cultural distance (Kirkman, Lowe, & Gibson, 2017; Reus & Lamont, 2009; Sirmon & Lane, 2004; Stahl & Tung, 2015).

More importantly perhaps, our study highlights the results that generate when individual dimensions of culture and their differences are considered. We find that like aggregate measure of CD, D-MF relates positively to completion likelihood although the effect of the latter is higher. Interestingly, this study finds that unlike aggregate measure of CD, D-IC and D-UA exert negative influence on project completion likelihood. Moreover, unlike the aggregate measure, D-PD does not exert any meaningful impact on project completion. These findings strongly suggest that relying on the aggregate measure of CD to determine MNCs' international outcomes may be grossly erroneous. Aggregate measure masks the fine-grained effects of differences in individual dimensions. The findings relating to individual dimensions and their differences on outcomes echoes the rationale that authors have highlighted in the past (Ahern et al., 2015, Contractor et al., 2014; Deephouse et al., 2016; Griffin, Guedhami, Kwok, Li, & Shao, 2017; Li & Parboteeah, 2015; Lim, Leung, Sia, & Lee, 2004).

Very few studies analyze the joint or interactive effect of differences relating to individual dimensions of culture. Our findings suggest that investigating the interactive effects can yield interesting results. The reversal in the individual influence of D-IC and D-UA when they act in unison (from individually negative to jointly positive), or suppression of the individual positive influence of D-MF due to the overriding influence of D-IC indicates that there is a lot of merit in analyzing the joint effect of individual differences. However, these findings are just the beginning. Lot more analysis are needed to understand the extent of joint effects and their implications in IB outcomes.

Third, with regard to studies involving emerging markets and firms therein there are two broad streams of research: one involving outward FDI by indigenous firms (Hoskisson et al., 2013) and the other focusing on entry of MNEs in emerging markets (Lahiri et al., 2014; Meyer et al., 2009). While both streams have grown over the years, the former has outpaced the latter in recent times. Our study involving collaboration between foreign MNEs and Indian firms at the project level contribute to the latter stream. Another noteworthy aspect of research with MNE entry in emerging markets is greater focus on formal institutional framework (rules and regulations) (Contractor et al., 2014; Meyer et al., 2009) as compared to informal institutional framework, in particular, national culture. Our study contributes by adding to the scholarship that examines the influence of informal institutional environment, specifically cultural, on MNE dynamics in emerging markets.

Managerial Implications

Our study has several implications for practicing managers. First, at a basic level, managers of foreign MNEs need to understand that CD matters significantly for their collaborative project success in emerging markets, specifically India. Second, managers not only need to be vigilant of the existing cultural differences but should plan for and proactively work towards minimizing various distant-related challenges with their local partners. It is possible to prevent increase completion likelihood through such proactive behavior. CD, commonly perceived as detrimental to interfirm collaborations, are not always so and can produce benefits if the managers deal with CD in a planned and proactive manner.

Third, managers need to take into account the effects of differences for each dimension of national culture. Specifically, they should be cautious about D-IC and D-UA since both can lower the probability of project completion. They should ensure that these differences are well understood and proactively taken care of (i.e., minimized) to prevent projects from being left incomplete. However, managers should also note that D-MF is actually beneficial for project completion. This means managers need not worry about the disruptive effects of D-MF. If they are aware of the differences, and carefully consider them in their planning and execution, they should be able to ensure project success. Fourth, managers need to realize the joint effect of cultural differences. They should note that collaborations involving high D-IC and D-UA are beneficial but collaborations that involve high D-IC and D-MF are detrimental for project completion.

In sum, MNE managers should seriously consider cultural differences in their planning for project success in emerging markets, and strive to develop quality, trust-based collaboration in order to increase chances of completion. Although managers need to manage all cultural differences they need to exercise particular caution with regard to differences in individualism-collectivism (D-IC).

Limitations and Future Research Directions

Our study has several limitations that open up avenues for future research. First, the study utilizes project-level data from only one host nation. This can limit the generalizability of study findings since the results may have been affected by India's idiosyncratic institutional and other country-of-origin attributes (Gaur & Delios, 2015; Lahiri et al., 2014). In the future, similar research should be done for collaborations involving partners from other locations, both developed and emerging markets. Second, this study takes a foreign MNE-centric view of collaboration, CD, and project success. Future research should include how local partners, in addition to foreign MNEs, contemplate and contribute towards project completion. Relatedly, future research need to examine project execution performance when local partners are government- or state agencies or other MNEs.

Third, this study focuses on informal institutional differences (cultural) as determining project outcomes and does not take into account formal institutional differences, and various home-country attributes of MNEs that can influence success in emerging markets. Future research needs to consider both home and host country determinants of project success (Luo, 2001; Tse, Pan, & Au, 1997) as well as various dimensions of formal institutional differences (Liou, Chao, & Yang, 2016; Salomon & Wu, 2012). Fourth, this study uses data from secondary sources. Future research may use questionnaire-survey data in addition to secondary data. Our final recommendation for future research is to engage in longitudinal studies and investigate how performance at the project level impacts overall collaboration or alliance performance (Christoffersen, 2013).

We hope this study will urge scholars to conduct more project-level studies involving emerging markets other than India.

REFERENCES

- Amsden, A.H., & Hikino, T. (1994). Project execution capability, organizational know-how and conglomerate corporate growth in late industrialization. *Industrial and corporate change*, 3(1): 111-147.
- Abdi, M., & Aulakh, P.S. (2012). Do country-level institutional frameworks and interfirm governance arrangements substitute or complement in international business relationships? *Journal of International Business Studies*, 43(5): 477-497.
- Ayyagari, M., Dau, L.A., & Spencer, J. (2015). Strategic responses to FDI in emerging markets: Are core members more responsive than peripheral members of business groups? *Academy of Management Journal*, 58(6): 1869-1894.
- Barkema, H. G., & Vermeulen, F. (1997). What differences in the cultural backgrounds of partners are detrimental for international joint ventures? *Journal of International Business Studies*, 28(4): 845-864.
- Berry, H., Guillén, M. F., & Zhou, N. (2010). An institutional approach to cross-national distance. *Journal of International Business Studies*, 41(9): 1460-1480.
- Beugelsdijk, S., Kostova, T., Kunst, V.E., Spadafora, E., & van Essen, M. (2017). Cultural distance and firm internationalization: A meta-analytical review and theoretical implications. *Journal of Management*, <https://doi.org/10.1177/0149206317729027>.
- Brewar, P., & Venaik, S. (2010). GLOBE practices and values: A case of diminishing marginal utility? *Journal of International Business Studies*, 41: 1316-1324.
- Brouthers, K.D., & Brouthers, L.E. (2001). Explaining the national cultural distance paradox. *Journal of International Business Studies*, 32(1): 177-189.
- Castaño, N., de Luque, M.F., Wernsing, T., Ogliastri, E., Shemeuli, R.G., Fuchs, R.M., & Robles-Flores, J.A. (2015). El Jefe: Differences in expected leadership behaviors across Latin American countries. *Journal of World Business*, 50(3): 584-597.
- CapEx, (2019). [Database].<https://capex.cmie.com> (accessed November 2021)
- Chakrabarti, A., & Mitchell, W. (2013). The persistent effect of geographic distance in acquisition target selection. *Organization Science*: 24(6): 1805-1826.

- Chanda, S.S., & Ray, S. (2016). Learning from project failure: Globalization lessons for an MNC. *Thunderbird International Business Review*, 58(6): 575-585.
- Chen, R., Cui, L., Li, S., & Rolfe, R. (2017). Acquisition or greenfield entry into Africa? Responding to institutional dynamics in an emerging continent. *Global Strategy Journal*, 7: 212-230.
- Chiang, F.F., & Birtch, T.A. (2010). Appraising performance across borders: An empirical examination of the purposes and practices of performance appraisal in a multi-country context. *Journal of Management Studies*, 47(7): 1365-1393.
- Chittoor, R., Kale, P., & Puranam, P. (2015). Business groups in developing capital markets: Towards a complementarity perspective. *Strategic Management Journal*, 36(9): 1277-1296.
- Christoffersen, J. (2013). A review of antecedents of international strategic alliance performance: Synthesized evidence and new directions for core constructs. *International Journal of Management Reviews*, 15(1): 66-85.
- de Jong, A., de Ruyter, K., & Wetzels, M. (2005). Antecedents and consequences of group potency: A study of self-managing service teams. *Management Science*, 51(11): 1610-1625.
- Deephouse, D.L., Newbury, W., & Soleimani, A. (2016). The effects of institutional development and national culture on cross-national differences in corporate reputation. *Journal of World Business*, 51(3): 463-473.
- Dikova, D., Sahib, P.R., & van Witteloostuijn, A. (2010). Cross-border acquisition abandonment and completion: The effect of institutional differences and organizational learning in the international business service industry. *Journal of International Business Studies*, 41(2): 223-245.
- Early, P.C. (2006). Leading cultural research in the future: A matter of paradigms and taste. *Journal of International Business Studies*, 37(6): 922-931.
- Gaur, A., & Delios, A. (2015). International diversification of emerging market firms: The role of ownership structure and group affiliation. *Management International Review*, 55(2): 235-253.
- George, R., & Kabir, R. (2012). Heterogeneity in business groups and the corporate diversification-firm performance relationship. *Journal of Business Research*, 65(3): 412-420.
- Griffin, D., Guedhami, O., Kwok, C.C., Li, K., & Shao, L. (2017). National culture: The missing country-level determinant of corporate governance. *Journal of International Business Studies*, 48(6): 740-762.

- Hau, L.N., & Evangelista, F. (2007). Acquiring tacit and explicit marketing knowledge from foreign partners in IJVs. *Journal of Business Research*, 60(11): 1152-1165.
- Hitt, M.A., Ahlstrom, D., Dacin, M.T., Levitas, E. & Svobodina, L. (2004). The institutional effects on strategic alliance partner selection in transition economies: China vs. Russia. *Organization Science*, 15(2): 173-185.
- Hofstede, G. (1980) *Culture's consequences: International differences in work related values*, Sage: Beverly Hills, CA.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*, (2nd ed.) Thousand Oaks, CA: Sage Publications.
- Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind*. McGraw Hill: New York.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.). (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage Publications.
- Hoskisson, R.E, Wright, M., Filatotchev, I., & Peng, M.W. (2013). Emerging multinationals from mid-range economies: The influence of institutions and factor markets. *Journal of Management Studies*, 50(7): 1295–1321.
- Kirkman, B.L., Lowe, K.B., & Gibson, C.B. (2017). A retrospective on culture's consequences: The 35-year journey. *Journal of International Business Studies*, 48(1): 12-29.
- Koch, P.T., Koch, B., Menon, T., & Shenkar, O. (2016). Cultural friction in leadership beliefs and foreign-invested enterprise survival. *Journal of International Business Studies*, 47(4): 453-470.
- Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19(3): 411-432.
- Kundu, S. K., & Lahiri, S. (2015). Turning the spotlight on service multinationals: New theoretical insights and empirical evidence. *Journal of International Management*, 21(3): 215-219.
- Lahiri, S., Elango, B., & Kundu, S. K. (2014). Cross-border acquisition in services: Comparing ownership choice of developed and emerging economy MNEs in India. *Journal of World Business*, 49(3): 409-420.

- Lahiri, S., & Kedia, B.L. (2009). The effects of internal resources and partnership quality on firm performance: An examination of Indian BPO providers. *Journal of International Management*, 15(2): 209-224.
- Li, C., Brodbeck, F.C., Shenkar, O., Ponzi, L.J., & Fisch, J.H. (2017). Embracing the foreign: Cultural attractiveness and international strategy. *Strategic Management Journal*, 38(4): 950-971.
- Li, C., & Parboteeah, K.V. (2015). The effect of culture on the responsiveness of firms to mimetic forces: Imitative foreign joint venture entries into China, 1985–2003. *Journal of World Business*, 50(3): 465-476.
- Lim, K.H., Leung, K., Sia, C.L., & Lee, M.K. (2004). Is eCommerce boundary-less? Effects of individualism–collectivism and uncertainty avoidance on internet shopping. *Journal of International Business Studies*, 35(6): 545-559.
- Liou, R. S, Chao, M.C., & Yang, M. (2016). Emerging economies and institutional quality: Assessing the differential effects of institutional distances on ownership strategy. *Journal of World Business*, 51(4): 600-611.
- Li, W., Lu, Y., Makino, S., & Lau, C.M. (2017). National power distance, status incongruence, and CEO dismissal. *Journal of World Business*, 52: 809-818.
- Lopez-Duarte, C., Vidal-Suarez, M., & Gonzalez-Diaz, B. (2016). International business and national culture: A literature review and research agenda. *International Journal of Management Reviews*, 18: 397-416.
- Lu, J.W., & Ma, X. (2008). The contingent value of local partners' business group affiliations. *Academy of Management Journal*, 51(2): 295-314.
- Luo, Y. (2001). Determinants of entry in an emerging economy: A multilevel approach. *Journal of Management Studies*, 38(3): 443-472.
- Malik, T. H., & Zhao, Y. (2013). Cultural distance and its implication for the duration of the international alliance in a high technology sector. *International Business Review*, 22(4): 699-712.
- Manikandan, K. S., & Ramachandran, J. (2015). Beyond institutional voids: Business groups, incomplete markets, and organizational form. *Strategic Management Journal*, 36(4): 598-617.
- Meyer, K.E., Estrin, S., Bhaumik, S.K., & Peng, M.W. (2009). Institutions, resources, and entry strategies in emerging economies. *Strategic Management Journal*, 30(1): 61-80.

- Meyer, K.E., & Peng, M.W. (2016). Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47(1): 3-22.
- Nielsen, B. B. (2007). Determining international strategic alliance performance: A multidimensional approach. *International Business Review*, 16(3): 337-361.
- North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge, MA: Harvard University Press.
- Peng, M.W. & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43(3): 486-501.
- Peng, M., Wang, D., & Jiang, Y. (2008). An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, 39(5): 920-936.
- Ren, H., Gray, B., & Kim, K. (2009). Performance of international joint ventures: What factors really make a difference and how? *Journal of Management*, 35(3): 805-832.
- Reus, T.H., & Lamont, B.T. (2009). The double-edged sword of cultural distance in international acquisitions. *Journal of International Business Studies*, 40(8): 1298–1316.
- Richard, P.J., Devinney, T.M., Yip, G.S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3): 718-804.
- Roy, J-P. (2012). IJV partner trustworthy behavior: The role of host country governance and partner selection criteria. *Journal of Management Studies*, 49(2): 332-355.
- Salomon, R., & Wu, Z. (2012). Institutional distance and local isomorphism strategy. *Journal of International Business Studies*, 43: 343-367.
- Shenkar, O. (2012). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, 43(1): 1-11.
- Shenkar, O., Luo, Y., & Yeheskel, O. (2008). From “distance” to “friction”: Substituting metaphors and redirecting intercultural research. *Academy of Management Review*, 33(4): 905-923.
- Singh, D., Pattnaik, C., & Ketencioglu, E. (2015). Corporate expansion during pro-market reforms: The role of business group affiliation and unrelated diversification. Paper presented at the annual meeting of the *Academy of International Business*, Bengaluru, June 27-30.

- Sirmon, D. G., & Lane, P. J. (2004). A model of cultural differences and international alliance performance. *Journal of International Business Studies*, 35(4): 306-319.
- Stahl, G.K., & Tung, R.L. (2015). Towards a more balanced treatment of culture in international business studies: The need for positive cross-cultural scholarship. *Journal of International Business Studies*, 46(4): 391–414.
- Taras, V., Steel, P., & Kirkman, B.L. (2010). Negative practice–value correlations in the GLOBE data: Unexpected findings, questionnaire limitations and research directions. *Journal of International Business Studies*, 41(8): 1330-1338.
- Tse, D. K., Pan, Y. & Au, K. (1997). How MNCs choose entry modes and form alliances: The China experience. *Journal of International Business Studies*, 28(4): 779–805.
- Williams, D.W., & Grégoire, D.A. (2015). Seeking commonalities or avoiding differences? Re-conceptualizing distance and its effects on internationalization decisions. *Journal of International Business Studies*, 46(3): 253-284.
- Zaheer, S., Schomaker, M.S., & Nachum, L. (2012). Distance without direction: Restoring credibility to a much-loved construct. *Journal of International Business Studies*, 43: 18-27.

Table 1 Variable measure and source

Variable	Measure	Source
	Dependent variable	
Likelihood of project-completion	A project was considered failure if its status was one of the following: announced and stalled, implementation stalled, shelved or abandoned. Failures were coded as 1; completed and outstanding projects were coded as 0.	CapEx (2016)
	Independent variables	
Cultural distance (CD)	Difference in national culture between MNE home country and India	Hofstede (1980) and https://geert-hofstede.com/
Difference in individualism-collectivism (D-IC)	Difference in individualism-collectivism dimension between MNE home country and India	Hofstede (1980)
Difference in uncertainty avoidance (D-UA)	Difference in uncertainty avoidance dimension between MNE home country and India	Hofstede (1980)
Difference in power distance (D-PD)	Difference in power distance dimension between MNE home country and India	Hofstede (1980)
Difference in masculinity-femininity (D-MF)	Difference in masculinity femininity dimension between MNE home country and India	Hofstede (1980)
	Control variables	
Project cost	Total cost of the project in million rupees	CapEx (2016)
Project type	Whether the project involves (a) creation of new unit or (b) expansion of an existing unit or renovation of an existing unit. Coded as 0 and 1 respectively	CapEx (2016)
Time clock	Year in which the project was announced	CapEx (2016)
Completion rate	Proportion of projects completed in the state in which the current project is located	CapEx (2016)
Sector	Whether the project is in the manufacturing sector or services sector. Manufacturing projects were coded as 1 and services projects were coded 0	CapEx (2016)
Geographic distance	Great circle distance between MNE home country and India	Cross-national distance database of the Lauder Institute, University of Pennsylvania
BG-affiliation	Whether the Indian partner is a member of an Indian business-group or an independent firm. Affiliated firms were coded as 1, independent firms were coded 0.	CapEx (2016)

Table 2 Descriptive statistics and correlation for all projects (N= 265)

	Variable	Mean	Std Dev	1	2	3	4	5	6	7	8	9	10	11	12
1	Project completion	0.687	0.465	1											
2	Completion rate	0.508	0.173	0.331*	1										
3	Time clock	2002.698	5.741	-0.267*	-0.621*	1									
4	Project cost (log)	7.852	2.199	-0.476*	-0.281*	0.172*	1								
5	Project type	0.898	0.303	-0.0123	0.0798	-0.0678	-0.0275	1							
6	BG-affiliation	0.438	0.497	0.169*	0.183*	-0.410*	0.103	-0.0297	1						
7	Sector	0.404	0.492	-0.257*	-0.0444	0.175*	0.258*	0.0229	-0.0905	1					
8	Geographic distance	8117.412	3616.682	0.0412	0.147*	-0.161*	-0.189*	0.0917	-0.0436	0.0438	1				
9	Cultural distance	1.593	0.649	0.129*	0.00943	-0.0194	-0.128*	-0.0414	-0.0863	-0.227*	0.215*	1			
10	D-PD	2.242	1.670	0.153*	0.221*	-0.191*	-0.229*	0.131*	-0.0107	-0.110	0.463*	0.492*	1		
11	D-IC	1.761	1.180	-0.0499	0.169*	-0.188*	-0.120	0.160*	0.0469	0.160*	0.725*	-0.0827	0.414*	1	
12	D-MF	0.946	1.557	0.0547	-0.124*	0.0496	0.0419	-0.124*	-0.0505	-0.169*	-0.240*	0.759*	0.00894	-0.512*	1
13	D-UA	1.424	1.801	0.0302	-0.195*	0.229*	0.0706	-0.178*	-0.102	-0.184*	-0.386*	0.383*	-0.497*	-0.716*	0.558*

Significance level (two-tailed) test: * $p < 0.05$

Table 3 Regression results for likelihood of completion (N=265) with aggregate measure based distance

	Model 1	Model 2	Model 3	Model 4
Completion rate	3.010* (1.342)	2.963* (1.303)	3.193* (1.415)	3.123* (1.362)
Time clock	-0.0357 (0.0395)	-0.0408 (0.0391)	0.00120 (0.0440)	-0.00434 (0.0422)
Project cost (log)	-0.530*** (0.103)	-0.538*** (0.102)	-0.580*** (0.103)	-0.600*** (0.105)
Project type	-0.260 (0.513)	-0.272 (0.536)	-0.272 (0.510)	-0.300 (0.542)
Sector	-0.784* (0.320)	-0.663* (0.335)	-0.760* (0.330)	-0.592 ⁺ (0.344)
Geographic distance	-0.0000525 (0.0000449)	-0.0000759 (0.0000489)	-0.0000414 (0.0000473)	-0.0000726 (0.0000512)
Cultural distance		0.384 (0.269)		0.508 ⁺ (0.278)
Business Group affiliation			1.018** (0.373)	1.117** (0.380)
Constant	76.22 (79.69)	86.10 (78.80)	2.168 (88.81)	12.86 (85.12)
Chi-squared (df_m)	54.87*** (6)	56.00*** (7)	65.06*** (7)	59.06*** (8)
Log likelihood	-119.3	-118.3	-115.6	-113.9
Pseudo r-squared	0.276	0.282	0.298	0.309

Standard errors in parentheses

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Regression results for likelihood of completion (N=265) with individual dimension-based distance

	Model 5	Model 6
Completion rate	2.989* (1.297)	4.769*** (1.368)
Time clock	-0.0112 (0.0414)	0.0157 (0.0438)
Project cost (log)	-0.633*** (0.111)	-0.648*** (0.116)
Project type	-0.159 (0.550)	-0.116 (0.595)
Business Group affiliation	1.203** (0.403)	1.110** (0.429)
Sector	-0.458 (0.355)	-0.600 (0.395)
Geographic distance	0.0000294 (0.0000803)	0.0000933 (0.0000953)
D-PD	0.313 (0.208)	0.274 (0.184)
D-IC	-0.665 ⁺ (0.402)	-1.634** (0.598)
D-MF	-0.0777 (0.180)	0.990*** (0.299)
D-UA	0.0825 (0.154)	-1.173* (0.468)
D-PD x D-IC		0.263 (0.252)
D-PD x D-MF		0.398 (0.358)
D-PD x D-UA		-0.479 ⁺ (0.278)
D-IC x D-MF		-1.642*** (0.464)
D-IC x D-UA		1.043** (0.348)
D-MF x D-UA		-0.115 (0.258)
Constant	27.12 (83.53)	-25.18 (88.20)
Chi-squared (df_m)	57.59*** (11)	70.53*** (17)
Log likelihood	-110.4	-104.0
Pseudo r-squared	0.330	0.369

Robust standard errors in parentheses; ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

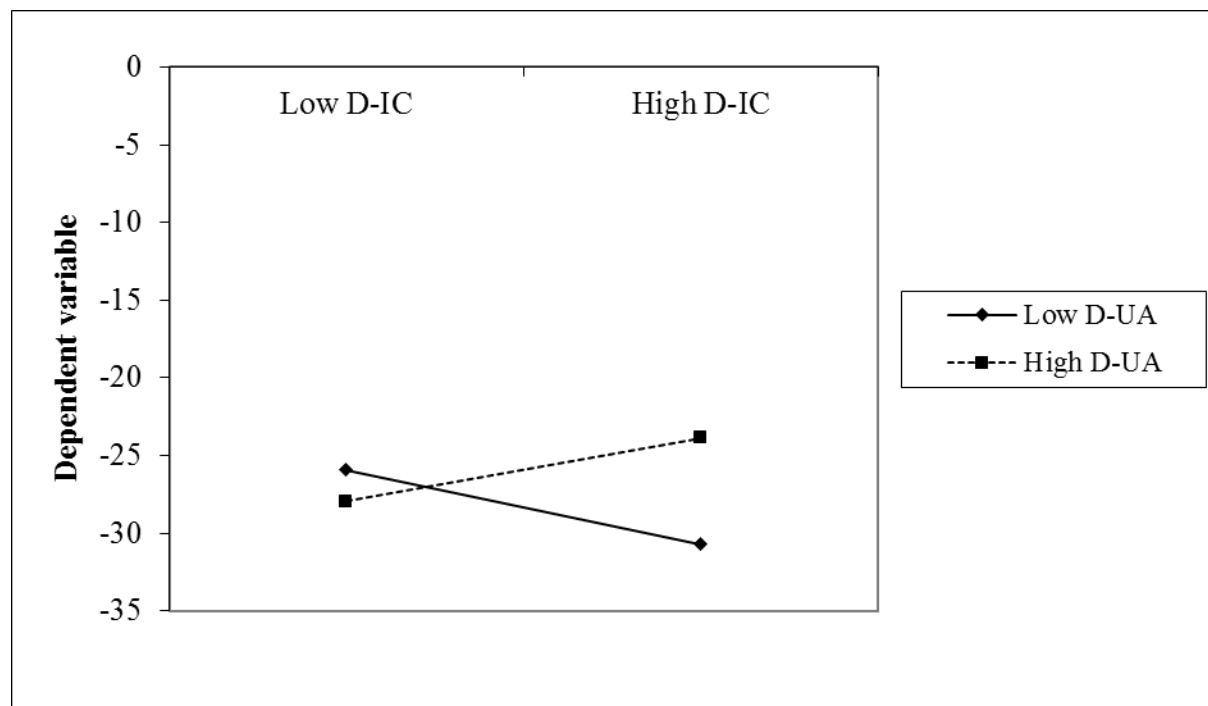


Fig. 1 The interaction effect between D-IC and D-UA

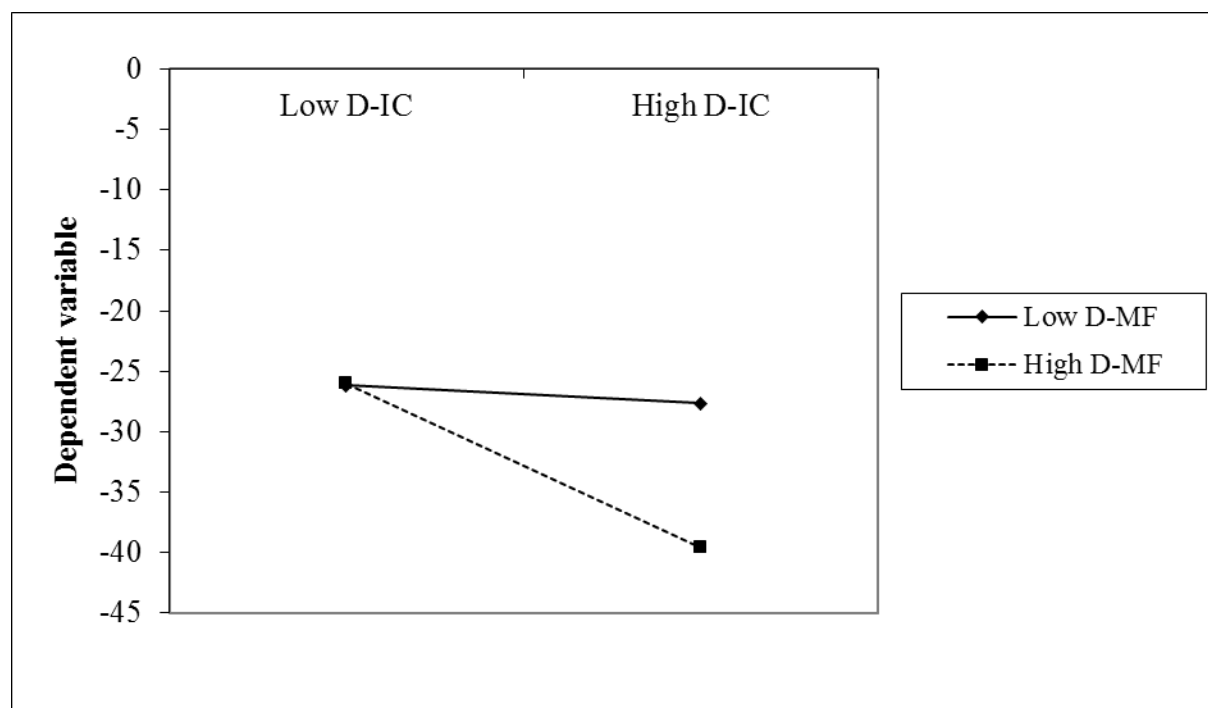


Fig. 2 The interaction effect between D-IC and D-MF